

Using ISERV and Commercial Satellite Imagery to Assess and Monitor Recovery Efforts in Urban Damaged Areas

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NASA's Short-term Prediction, Research, and Transition (SPoRT) Center uses a wide array of satellites to monitor and assess the impacts of natural disasters, with support from NASA's Applied Sciences Program. One of the newest sensors SPoRT is utilizing in these activities is the International Space Station (ISS) SERVIR Environmental Research and Visualization System (ISERV) instrument. ISERV provides a unique view of the areas impacted and will play a big role in monitoring the recovery these areas. High-resolution commercial satellite data is also used to monitor urban areas that have been impacted by natural disasters. SPoRT is developing techniques to measure the extent of these disasters and to monitor recovery. Several of these techniques include semi-automatic feature detection and change as well as developing an experimental damage assessment based upon the visible damage observed by the satellites. Furthermore, throughout these activities SPoRT hopes to provide additional data to the NOAA National Weather Service Damage Assessment Toolkit, which will help to supplement those activities being performed in the field.